

CLAIMS

1. A device for obtaining a light image, comprising at least one light source; a transparent volume; at least one block associated with said volume and having dispersing centers; a control block operative for controlling intensity, color and time of illumination of a light flux which is produced by said at least one light source; and at least one additional optical element for introduction of the light flux, said at least one additional optical element having an input at which said at least one light source is located and an output which is optically connected with said transparent volume, said at least one additional optical element having a geometry which provides a directional introduction of the light flux into said volume at an angle which is greater than a critical angle, wherein $S_1/S_2=3\dots 10$, where S_1 is an area of an output cross-section of said at least one additional optical element, S_2 is an area of an input cross-section of said at least one additional optical element, and a coefficient of refraction of said at least one additional optical element and a coefficient of refraction of said transparent volume are related as $n_2 \geq n_1$, where n_2 is a coefficient of refraction of said at least one additional optical element, and n_1 is a coefficient of refraction of said transparent volume.

2. A device as defined in claim 1, wherein said at least one block with said dispersing centers is located in said transparent volume.

3. A device as defined in claim 1, wherein said at least one block with said dispersing centers is located on a surface of said transparent volume.

4. A device as defined in claim 1, wherein said dispersing centers are artificially formed in said at least one block with said dispersing centers.

5. A device as defined in claim 1, wherein said dispersing centers are introduced in said block with said dispersing centers.

6. A device as defined in claim 1, wherein said transparent volume being formed as a transparent panel, said at least one additional optical element is formed as a plane-parallel plate which has an optical contact with said transparent panel.

7. A device as defined in claim 6, wherein said transparent panel is formed as a plane-parallel panel.

8. A device as defined in claim 1, wherein said at least one additional optical element is formed as a wedge with a surface which has flat and perpendicular to a surface of said transparent volume.

9. A device as defined in claim 8, wherein said transparent volume is formed as a plane-parallel transparent panel, said surface of said

wedge being perpendicular to a surface of said plane-parallel transparent panel.

10. A device as defined in claim 1, wherein said at least one additional optical element has a surface which is curved and inclined to a surface of said transparent volume.

11. A device as defined in claim 10, wherein said transparent volume is formed as a plane-parallel transparent panel, said curved surface of said at least one additional optical element is inclined toward a plane of a surface of said plane-parallel transparent panel.

12. A device as defined in claim 1, wherein at least one of surfaces of the device is formed as a mirror surface.

13. A device as defined in claim 1; wherein said transparent volume is formed as a plane-parallel transparent panel with at least an edge surface formed as a mirror surface.